FINAL
Former Naval Station Treasure Island
Restoration Advisory Board (RAB) Meeting Minutes

Meeting #153 19 April 2011

Community Restoration Advisory Board (RAB) Members in attendance:
Alice Pilram, Dale Smith

Department of the Navy and Regulatory Agency RAB Members in attendance:
James Sullivan (Navy)
Ross Steenson (San Francisco Bay Regional Water Quality Control Board [Water Board])

Other Navy and Regulatory Staff and Consultant Representatives in attendance:
Jessica Beck (Tetra Tech EM Inc. [Tetra Tech])
David Clark (Navy)
Zachary Edwards (Navy Radiological Affairs Support Office [RASO])
Shirley Fu (Tetra Tech)
John Hamm (Shaw Environmental and Infrastructure, Inc. [Shaw])
Brian Holmgren (Shaw)
Yohji Ono (Tetra Tech)
Marcie Rash (Tetra Tech)
Matthew Slack (Navy RASO)
Tommie Jean Valmassy (Tetra Tech)

Public Guests
Tony Gantner
Harold Spiva

Welcome Remarks and Introductions
James Sullivan (Base Realignment and Closure [BRAC] Environmental Coordinator) opened the April RAB meeting for Former Naval Station Treasure Island (NAVSTA TI), held at the Casa de la Vista (Building 271) on Treasure Island (TI). Mr. Sullivan noted the meeting handouts are available on the back table, including copies of the agenda (Attachment A.) He also noted a sign-in sheet is available on the back table and asked everyone to sign in. Mr. Sullivan asked for any comments or changes to the agenda; there were none.

Public Comment and Announcements
Mr. Sullivan invited public comment, noting there is also time at the end of the meeting for additional public comment. There was no public comment at this time.

Treasure Island/Yerba Buena Island Property Transfer Update and Finding of Suitability to Transfer

Mr. Sullivan provided his regular RAB meeting update on the status of property transfer, including the Finding of Suitability for Transfer (FOST) (Attachment B). He noted there has not been much change since the last RAB meeting. Transfer of FOST property from the Navy to the Treasure Island Development Authority (TIDA) has not yet occurred, but is expected to occur in phases beginning in early 2012. Mr. Sullivan said there has been discussion about a possible transfer of land related to the Bay Bridge, specifically the ramps on Yerba Buena Island (YBI). He said discussions may resume and he expects to have an update at the next RAB meeting [in June]. Dale Smith (RAB member) asked what property the transfer might include, and if it would include the "slivers of land" that Mr. Sullivan had mentioned in a previous meeting. Mr. Sullivan said no; it would only include the ramp areas on YBI. The Navy needed to do additional environmental investigation to remove some of the ramp property from Site 29, since Site 29 is still an active Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site. This specific property was removed from the Site 29 boundary, with concurrence from the Base Realignment and Closure (BRAC) Cleanup Team (BCT). Other slivers of property will have to be addressed in a future FOST document. Mr. Sullivan said that other portions of NAVSTA TI have been transferred to other government agencies several years ago, such as the bridge right-of-way to Caltrans. However, no property has been transferred to TIDA yet. All of the property that will be transferred to TIDA will be via an Economic Development Conveyance (EDC).

Mr. Sullivan reviewed the major actions required for the initial property conveyance to TIDA; the first is completion of the third FOST. It was previously referred to as the 2010 FOST, but the completion date has moved to 2011. It should be completed in April or May 2011. Mr. Sullivan said the Navy is working with the Water Board to achieve closure for Site 25. Once the Water Board concurs that Site 25 should be closed, that site will be included in the FOST and the FOST can be finalized. He noted Site 25 lies along the south waterfront, and the Navy is trying to transfer as much of that area to TIDA as possible in the initial transfer.

Mr. Sullivan reminded attendees that two FOSTs were prepared in 2006; one is for Yerba Buena Island (YBI) and one is for TI. The second item the Navy must complete for initial property conveyance is a single addendum to the two 2006 FOSTs.

In addition, TIDA must complete its California Environmental Quality Act (CEQA) process. Mr. Sullivan said there is a meeting this Thursday night, April 21 when the City's planning commission plans to certify the Environmental

Impact Report EIR) for the project. Ms. Smith asked if there was an extension to the public comment period for the EIR. Mr. Sullivan said he did not know.

Lastly, before the initial conveyance, the Navy and TIDA must finalize the conveyance agreement. The conveyance agreement is posted on TIDA's website and is part of the discussion the City will have at the meeting this Thursday. The conveyance agreement includes the EDC, maps, deeds, and other required documentation. This package must be approved by Navy Headquarters, the TIDA Board, and the San Francisco Board of Supervisors. Those approvals should be granted sometime later this spring. Ms. Smith asked if the material will be sent to the RAB. Mr. Sullivan said it will not; they are all development-related documents, and the RAB reviews environmental documents. However, he noted the FOST is the environmental portion and a draft was sent to the RAB.

Mr. Sullivan said the Navy has also agreed to reach specific milestones in the environmental program before the initial conveyance in 2012. As noted on slide 3 of the handout, these milestones are: (1) the Building 233 demolition and finalizing the radiological Final Status Survey Report; (2) the Final Record of Decision (ROD) for Site 21 (the Proposed Plan is currently being prepared and is the step just before the ROD); and (3) the remedial action at Site 33, including preparation of the Remedial Action Completion Report (RACR). Mr. Sullivan added the planned remedial action for Site 33 is part of the reason it made sense to incorporate Site 33 into the Site 31 ROD via the Explanation of Significant Differences (ESD), since the remedial action will be the same at both sites. Mr. Sullivan noted these three milestones were set because of geography; they are all areas in the southern portion of TI, which is the area that will be transferred first. Ms. Smith asked about the housing on YBI. Mr. Sullivan said that property was covered in a 2006 FOST.

Ms. Smith asked about the development plans under way and whether that is a TIDA process that is outside of the RAB process. Mr. Sullivan said the RAB reviewed the FOSTs from 2006. Ms. Smith said she was confused as to why it took TIDA 6 years since the 2006 transfer to begin making development decisions. Mr. Sullivan explained the land was not transferred in 2006. The property was environmentally ready so the Navy prepared the documentation, which are the FOSTs. However, no official transfer agreement had been reached at that time. As a result, the initial property conveyance, scheduled for early 2012, will include property covered in both 2006 FOSTs and in FOST 3.

Mr. Sullivan said after these three FOSTs, subsequent FOSTs will be prepared as other CERCLA sites are cleaned up. The schedule for the path to closure for all of the sites at NAVSTA TI is in the Site Management Plan (SMP).

Field Activities and Access Update and Site 24 Phase II Draft Treatability Study Report and Phase III Work Plan

Mr. Sullivan said the field activities update will also include the Site 24 update, listed separately on the agenda. He introduced Brian Holmgren (Shaw) to present the updates. Mr. Holmgren began the general field activities update with a presentation on the work conducted at Site 12 (Attachment C). He noted this update is separate from the Site 12 Remedial Investigation (RI) report, scheduled later in the meeting. He reviewed the upcoming documents for Site 12, which include a Final Status Survey Plan, a Building 1321 Hot Spot Removal Instruction, and a Demolition Work Instruction for Buildings 1123, 1319, and 1321. Buildings 1123, 1319, and 1321 are vacant and are located along Westside Drive.

Mr. Holmgren then reviewed the map of Bigelow Court (slide 3) and said field activities are expected to start there this summer. This slide shows the excavation areas; planned excavation depths are to 4 feet, shown in brown, or to 2 feet, shown in yellow. He noted all of the buildings on this court are vacant. Buildings 1101 and 1103 will be demolished so soil excavation can proceed. Mr. Sullivan said Bigelow Court was included in the 2006 Engineering Evaluation/Cost Analysis (EE/CA) and Action Memorandum. There were four solid waste disposal areas (SWDAs): the three that are part of the Non-Time Critical Removal Action (NTCRA) along Perimeter Road, and the fourth one at Bigelow Court. Initially the Navy thought it may do some field work at Halyburton Court, adjacent to Bigelow Court. The Navy planned that work at the same time to minimize disruption to nearby residents. However, the Navy is still not prepared for field work in Halyburton Court, but does not want to delay the work at Bigelow Court any longer.

Ms. Smith asked if the area had been used as a dump, and if the contaminants of concern are polycyclic aromatic hydrocarbons (PAH). Mr. Sullivan said there was some debris-related contamination at Bigelow Court, and the contaminants include lead, PAHs and polychlorinated biphenyls (PCB). Ms. Smith said she recollected the Navy had done thorough cleaning, then went back and collected swipe samples which confirmed there were no further contaminants. She asked if these actions were taken at Bigelow Court or elsewhere. Mr. Sullivan said that in 2000 a PCB removal was conducted at Halyburton Court, and the work extended partially into Bigelow Court. The Navy was specifically looking for PCBs because historical photos showed the area as a storage yard for equipment that leaked fluid containing PCBs. Part of Bigelow Court was excavated to address PCBs, but no debris was found. However, some debris was found just outside of the PCB removal project area. The debris could include PCBs, but the primary contaminant of concern is lead. Ms. Smith asked if there were other contaminants such as dioxins and furans. Mr. Holmgren said lead, PCBs, and PAHs are the contaminants at Bigelow Court.

Mr. Sullivan said the RAB will receive the draft work plan for Bigelow Court for review when it is issued. Mr. Holmgren said the work plan is currently an internal draft being reviewed by the Navy. Once Navy comments are incorporated, it will go to the BCT and the RAB for review.

Mr. Holmgren then reviewed the current public access on Perimeter Road. Ms. Smith asked if there had been any complaints from the public about the access on Perimeter Road. Mr. Sullivan stated that most of the perimeter path, including the boat ramp, is accessible to the public, so there have not been any complaints about the current configuration.

Mr. Holmgren moved on to the next part of the field activities presentation (Attachment D). Mr. Holmgren said since the last RAB meeting Shaw had done groundwater monitoring at Sites 21, 24, and 32. The work plan for the sampling was finalized on March 1, and field work was conducted between March 9 and April 5. Thirty-five wells were sampled at Site 21; 52 wells were sampled at Site 24, and two wells were sampled at Site 32. The analytical results have not yet been received, but are expected around April 29. Mr. Holmgren noted the groundwater will be sampled quarterly, and the second quarter of groundwater sampling will begin in June. Ms. Smith asked why samples were not collected close to the bay at Site 32. Mr. Holmgren stated the samples are fairly close to the bay.

Mr. Sullivan said Site 32 is the former location of the U.S.S. Pandemonium, the training ship. The primary contaminant of concern was PCBs from possible electrical transformer leaks or from PCB-contaminated oil being used for dust control. As a result, under the Toxic Substances Control Act of 1976 (TSCA) the Navy abated PCBs. However, a petroleum release was identified during the PCB abatement. The Navy worked with the Water Board to identify the appropriate location for two wells. Ms. Smith asked Ross Steenson (Water Board) if the Water Board is concerned about the northern area of Site 32, where the Navy had not installed groundwater monitoring wells. Mr. Steenson said the site has already been extensively investigated. Ms. Smith asked if this area is where the site was investigated below the water table and the riprap had to be reinforced. Mr. Holmgren confirmed that this is that site. Mr. Steenson said the work is post-excavation verification monitoring, so there are only two wells because the focus is on a specific area. Mr. Holmgren reviewed photographs of the groundwater monitoring event. He noted that a bladder pump could not be used for wells that are 1 inch in diameter or smaller. Instead, a peristaltic pump was used. Photographs of both types of pump are presented on slide 4.

Mr. Holmgren moved on to the update on the Site 21 Treatability Study, which is part of Attachment D. The final report for the Treatability Study was finalized on March 1. It concluded that the removal action was effective in reducing the

chlorinated solvents in groundwater. There is still a small area of groundwater where the chlorinated solvents exceed cleanup goals, but there is evidence that biodegradation is continuing. Ms. Smith asked if Site 21 is the site that TIDA wants further investigation of before it is included in the FOST. Mr. Sullivan said that issue is related to soil gas sampling at another site and is discussed later in the presentation.

Mr. Holmgren said the Phase 2 Treatability Report for Site 24 was just issued to the Navy as an internal draft on April 19 and the Navy will be providing Shaw comments on the document in May. As noted, the study was "phase 2," and there is a phase 3. Phase 3 will address residual contamination along the Site 24 boundary. The Navy has already reviewed the internal draft work plan and Shaw is incorporating those comments.

Mr. Holmgren then presented a brief history of Site 24, not included in the handout. Site 24 highlights include:

- The main contaminant is chlorinated ethenes in the form of tetrachloroethylene (referred to as PCE), which is a dry cleaning solvent.

- A pilot study was done from 2003 to 2004 using anaerobic in situ bioremediation at Building 99, which is the source area.

- The pilot study was also designed to provide a sound technical basis for expanding the bioremediation to the extended plume (the plume reaches from 5th Street over to 8th Street, and from Avenue H to Avenue N).

- The pilot study was a success, so an expanded treatability study was done in phases: phase 1 was from November 2004 to May 2007; phase 2 was from June 2008 to October 2010.

- The expanded treatability study included the following:

    - Phase 1: anaerobic process using lactic acid, hydrogen, and augmenting bacteria using various injection wells, extraction wells, and monitoring wells.

    - Phase 2: based on some rebound during phase 1, the study was then focused along the southern portion of Site 24. This phase used a sodium lactate solution amended with supplements and emulsified vegetable oil, with additional wells installed.

    - Phase 3: the work plan is currently being prepared. After phase 2, concentrations were above remedial goals in four areas along the

southern portion of Site 24. Phase 3 will address these elevated concentrations.

Mr. Sullivan said this area is of interest to TIDA because it will begin redevelopment in the area that abuts Site 24. Therefore, the Navy is trying to focus on that area and make sure the contamination is addressed as soon as possible. Mr. Holmgren said the work for phase 3 will take place later in summer 2011. The work plan for phase 3 will be distributed to the BCT and the RAB for review. Mr. Sullivan summarized the Site 24 update by explaining Shaw completed phase 1 and wrote a report, completed phase 2 and is currently writing the report, and is planning phase 3.

Mr. Holmgren moved on to an update on soil gas sampling at Site 25. He noted Ms. Smith was referring to this site earlier, where the Navy is trying to complete the sampling before the site is included in the FOST. He also said additional soil gas sampling is proposed for Sites 21 and 24. At Site 21, twenty six additional sample locations are proposed with a possible 11 step-out locations; at Site 24 eight additional sample locations are proposed. The contract for the work is being finalized.

Mr. Holmgren moved on to an update of Site 31, which is the area where a potential radiological anomaly was found in the sidewall of an excavation. Shaw is addressing comments from the California Department of Public Health on the work instruction. Investigation of the anomaly will begin on April 26. The work plan for continuing the investigation is on hold pending results from the anomaly investigation. The remedial work is expected to resume later in summer 2011. Mr. Sullivan said the work plan for the rest of the investigation is one work plan for both Site 31 and 33.

Mr. Holmgren moved on to the update of Site 33. An ESD to the Site 31 ROD was issued as draft in order to add Site 31 to that ROD. The responses to comments on the ESD were issued on April 1. Mr. Holmgren noted that when the Navy and its contractors did the original investigation at Sites 30 and 31, they encountered debris and noted the location of the debris. That is when the area was further investigated and Site 33 was established. At this point, Site 33 is a new site and no remedial action has been conducted at this site yet. There were no further questions about the field activities update.

Site 12 Draft Remedial Investigation Report Preview

Mr. Sullivan introduced the next topic, the Draft Remedial Investigation (RI) for Site 12. He noted the document had not yet been issued, but it will be issued before the next RAB meeting in June, so the update is being given now. Dave Clark (Navy) began the presentation (Attachment E). He noted there are only two sites at NAVSTA TI where RIs still need to be completed: Site 6 and Site 12.

Mr. Clark noted that at a previous RAB meeting the RAB received a presentation about the Human Health Risk Assessment (HHRA) at Site 12. This presentation will focus on all of the steps in the RI, and then talk in more detail about the HHRA and touch on the Screening Level Ecological Risk Assessment (SLERA), both of which are parts of the RI.

Mr. Clark reviewed an aerial view of Site 12. He noted, as Mr. Holmgren discussed during his presentation, excavations are under way at the SWDAs within Site 12. Those SWDAs, along with Site 20 that is a small petroleum site carved out of Site 12, are not part of the RI. Mr. Clark said the Navy is doing an RI because Site 12 is a CERCLA site, and therefore the Navy must go through the CERLCA process to investigate and remediate the site. Investigations at Site 12 began in 1988 with the Preliminary Assessment and Site Inspection report. Other investigations over the years have included the onshore RI in 1997 and the Draft Site 12 Operable Unit RI in 1999. Mr. Clark said that a lot of data have been collected over the years, which is a main point in this presentation: generally speaking, the volume of data collected and included in the RI should be enough data to adequately characterize Site 12.

Mr. Clark reviewed the history of Site 12, noting from the early 1940s through 1968 there were ammunition bunkers at the site. Historically there was some dumping near the bunkers, as well as a burn area. The Navy removed the bunkers in the late 1960s to make room for housing. The site was graded to prepare for the housing and discarded material was spread around during grading. Mr. Clark reiterated that the Site 12 RI covers the soil areas that are outside of the SWDAs and the groundwater across all of Site 12.

Mr. Clark said the residential buildings were constructed in four phases, from 1967 to 1989. The Navy leased portions of the housing area to TIDA beginning in March 1999. The first residents moved in to the Site 12 housing area in June 1999. Mr. Clark reviewed several historical maps and conceptual site models, showing Site 12 from over the years. He noted the history of the site actually begins in 1939, when it was used as a parking lot for the Golden Gate International Exposition. The photographs show the progression of bunkers, the SWDAs, and then the housing construction over time. Based on the photos and the historical data collected, the Navy has a good idea of where the debris disposal areas are likely to be within Site 12.

Mr. Clark noted that there are areas where groundwater is a concern. In addition to soil, the Navy is also investigating groundwater and soil vapor. Mr. Clark pointed out the area (near Building 1313) that historically had a tank and related total petroleum hydrocarbon (TPH) contamination. The TPH present in that area mobilized the arsenic into the groundwater. The Navy initiated an arsenic

treatability study and found that the TPH is comingled with the arsenic. A simple in-situ treatment system may therefore not be practical at this time. Thus, this petroleum area is being wrapped into the RI to evaluate and address the risks.

Because of the size of Site 12, it is difficult to address from a CERCLA perspective. In consultation with the BCT, the Navy decided to break the site into several areas, called exposure units (EU). Then, based on particular contaminants of concern, each EU may be further broken down into different areas of interest. Mr. Clark said there are also five areas where groundwater is a concern. He noted the SWDAs are undergoing an NTCRA and are not included in this RI. The overall goal of the NTCRA is to be able to determine that the SWDAs are clean and no further action is needed. At that time, the SWDAs will be integrated back in with the rest of Site 12, but it is not yet determined when they will be integrated.

Ms. Smith asked what is meant by the areas being "clean." Mr. Clark said the term means unrestricted future use, so that soil would be suitable for residential standards. Ms. Smith asked which standards were being used, California EPA, or U.S. EPA. Mr. Clark said that although risks are calculated using both California EPA and U.S. EPA standards, the California EPA DTSC is the lead agency, so the Navy generally uses the Cal EPA cleanup levels.

Mr. Clark said that because the site is so large and because of the way it was developed, it made sense to divide it into north and south. Looking at the data in detail, the northern area is more contaminated than the southern area because the northern area is where the bunkers were and where items were burned. Mr. Clark added that dividing the area into two sections, north and south, may also help the Navy fine-tune the remedial action when the project reaches that point.

Mr. Clark reviewed the list of numerous previous investigations at Site 12. He noted these investigations are for all of Site 12. In total, 4,039 samples associated with Site 12 (excluding the SWDAs) were collected between 1990 and 2010: 3,607 soil; 322 groundwater; and 110 soil gas. Data were compared with screening levels in the RI report, including risk-based concentrations, ambient levels, and petroleum criteria. Soil data exceeded screening levels for petroleum, PAHs, pesticides, metals, PCBs, and dioxin-like PCBs. Groundwater data exceeded screening levels for TPH and metals, such as arsenic. Soil gas data exceeded screening levels for benzene and chloroform, which are volatile organic compounds.

Mr. Clark said the presentation will now move into some of the details of the risk assessments and introduced his co-presenter, Shirley Fu (Tetra Tech). Ms. Fu

explained the HHRA is a large portion of the RI. The purpose of her portion of the presentation is to present a "road map" of the HHRA to make the RAB's review of the RI easier.

Ms. Fu said risk assessment is a consistent process for evaluating and documenting threats to public health. She noted it is consistent because the same procedures are used to evaluate risk at NAVSTA TI as at other sites across California. The consistent process is based on guidelines that U.S. EPA provides. Ms. Smith said that at many sites in the Bay Area, risk levels are modified based on site-specific contamination levels. A site contaminated with arsenic, for example, may not be considered a threat to human health because of site-specific background levels. Ms. Smith asked if NAVSTA TI is using site-specific guidelines rather than statewide guidelines. Ms. Fu said that has not yet been determined. She added that the decision is not just up to the Navy; it depends on the specific results of the risk assessment. Mr. Clark said there are background levels for arsenic. Ms. Smith asked if there are also background levels for lead and radiation that are site-specific. Mr. Clark confirmed there are. Ms. Fu said later in the presentation she will talk more about ambient and background levels and how those are used in the HHRA.

Ms. Fu said there are four major steps in the HHRA: (1) data collection and evaluation, (2) exposure assessment, (3) toxicity assessment, and (4) risk characterization. Step 1 can be called "What is Out There?" Ms. Fu referred to the numerous samples Mr. Clark mentioned earlier in the presentation; that information is used to answer the question of "what is out there." Ambient data are also collected and used in the evaluation. These data allow the team to understand what is naturally occurring and at what levels. Then, while the HHRA is prepared, the health risk associated with residual contamination from previous Navy activities can be separated from the levels of health risk associated with naturally occurring concentrations that are not related to previous Navy uses of Site 12.

Step 2 can be called "Who, How, and How Much?" The "who" are the people who may be exposed and they are called receptors. The receptors are selected by looking at current use and possible future use of the site. For Site 12, receptors include current residents, as well as potential future users including residents, commercial and industrial workers, recreational users, and construction workers. After it is determined who might be exposed, the team needs to determine "how" they might be exposed. The ways people may be exposed are called potentially complete exposure pathways. Exposure is primarily by soil exposures at Site 12 and could include getting soil on your skin or in your mouth. It could also include inhaling particulates in the air if they are windblown. For volatile chemicals, though people may not touch them in soil at

the ground surface, they could migrate upwards and enter the indoor air of buildings.

The final part of Step 2 is to answer "how much" exposure could occur, determined by estimating the chemical intake. Ms. Fu explained that exposure assumptions include frequency, duration, route, and how much absorption of the chemical may occur. Assumptions used to estimate exposure are based on years of scientific studies verified and validated by U.S. EPA and California EPA. Assumptions are selected based on what is a reasonable maximum estimate of exposure. For example, the risk assessor assumes a resident may be exposed to site chemicals for 24 hours per day, for 50 out of 52 weeks of the year, continuously for 30 years. The assumptions for an industrial exposure scenario are for someone that is working 8 hours per day, for 50 out of 52 weeks of the year, continuously for 25 years.

Step 3 is the toxicity assessment. Ms. Fu said she refers to this step as "Of Mice or Men." The toxicity assessment is a relationship between chemical intake and biological response. Basically, how much exposure can occur before there is a health effect. There are two categories of health effects: cancer and noncancer. Some chemicals are associated with only one effect and some are associated with both. Studies are usually conducted on animals – typically mice — to understand the toxicity of chemicals on humans. There is uncertainty when extrapolating health effects from mice to health effects in humans. Therefore, guidance incorporates uncertainty factors to make sure potential human health risk is not underestimated.

Step 4 of the HHRA is risk characterization or "Is the Risk Acceptable?" In this step, the three previous steps are pulled together to estimate health risks. Estimates for cancer are expressed as probabilities, such as one in a million or one in a hundred million. Noncancer effects are expressed as a ratio compared with one. For cancer, EPA has determined that a cancer risk level of one in a million or less is acceptable, but at one in ten thousand remedial action may be required. The area in between one in ten thousand (1:10,000) and one in a million (1:1,000,000) is considered the risk management range. Several things are considered as part of the risk management process for cancer risks that fall within that range: the specific chemicals causing the risk, naturally occurring background levels, cost effectiveness (how much remedial action might reduce or not reduce the risk), and regulatory agency and community input. Ms. Fu added that it is not a strict black and white decision based on the risk result, and that is where ambient levels come in. Ms. Fu explained, using arsenic as an example, that if high levels are associated with naturally occurring levels, then the Navy will not clean up contamination that is naturally occurring because there is no way to successfully clean it up.

Ms. Fu said the RI presents cancer risk estimates and noncancer hazard estimates for each of the 25 exposure areas at Site 12. Cancer risks and noncancer hazards are estimated separately for each receptor. They are also calculated and presented separately for each exposure pathway. Then, the results are summed together to provide a cumulative cancer risk and a cumulative noncancer hazard. Three types of risk are presented in the Site 12 RI report: total, site, and incremental. Total risk includes all chemicals detected at Site 12, regardless of background concentration. Site risk excludes chemicals that were detected consistent with background levels. Incremental risk is similar, but risks associated with naturally occurring background concentrations are subtracted out of the cumulative risk result. Ms. Fu noted two sets of risk estimates are presented: one is based on U.S. EPA toxicity criteria and one is based on California EPA toxicity criteria. There are differences in the two sets of criteria, and running two sets of risk estimates makes sure everything is covered. Ms. Fu added that, for Site 12, generally the risks are not significantly different whether State of California or federal EPA levels are used.

Ms. Smith expressed concern about lead levels and asked which levels are being used at Site 12. Ms. Fu said the HHRA in the Site 12 RI includes an evaluation based on state and federal toxicity criteria. Ms. Smith asked what level for lead is being used from the state and whether it is the updated level. Ms. Fu said the 80 milligrams per kilogram residential level for lead is used that the state released in the last year and a half.

Ms. Fu moved on to talk about the SLERA. The SLERA involves comparing data from soil samples to ecological threshold values to determine if there is a potential issue for ecological receptors. Receptors included plants, invertebrates, and vertebrates. The SLERA found there were unacceptable risks to those ecological receptors. However, a habitat study was done for Site 12. The purpose of the habitat study is to determine if it is a viable habitat for ecological receptors to be present on an ongoing basis. The study concluded the ecological habitat at Site 12 is very poor and does not provide sustained continued habitat for ecological receptors. Based on that habitat finding, no further action was recommended to deal with ecological risks at Site 12.

Ms. Fu said there is an additional evaluation related to groundwater in the area of Buildings 1311 and 1313. There may be a possibility for impacts to ecological receptors in the bay because of elevated arsenic concentrations in groundwater and the proximity of the site to the bay. That evaluation is ongoing and the Navy is continuing to monitor arsenic levels to ensure there are no adverse ecological impacts. Mr. Clark added there are wells along the seawall that are included in the Site 12 groundwater monitoring program.

Ms. Smith stated it is her understanding that Jim Polisini, PhD, with DTSC does not agree that the ecological habitat quality is poor. She is aware that he has commented that the habitat appears to be incrementally improved because he has seen wading birds and diving ducks. Mr. Sullivan said the Navy is looking at Site 12 as a residential area. Ms. Smith asked if ultimately Site 12 is supposed to be unoccupied. Mr. Sullivan said according to TIDA's plans, portions will be residential.

Mr. Clark moved on to the summary of the conclusions being prepared in the draft RI. The report provides a recommendation for each exposure area. The potential recommendations could include no further action or further action. If further action is recommended, action could include a soil management plan for construction workers; further investigation such as sampling and risk evaluation for specific chemicals or continued groundwater monitoring; or further evaluation in a Feasibility Study for a possible remedial action. Mr. Clark said there will be several conclusions as the Navy and Tetra Tech move through the process and discuss the findings with the BCT. He said the team will be working together over the next couple of months to prepare the draft RI report and distribute it to the BCT and the RAB by summer. Ms. Smith asked how long it might take to get to a ROD for Site 12. Mr. Clark said at least 5 more years will be needed. Mr. Sullivan said that information is described in the SMP document. He noted that the schedules may change, but the SMP is updated annually.

Mr. Clark said the SWDAs make the schedule more tentative because ultimately the Navy would like to wrap those areas into one full site and have just one Proposed Plan for Site 12. If cleanup of the SWDAs extends farther than anticipated, it could delay the Proposed Plan.

Mr. Clark added the Navy has an extensive amount of data for Site 12. Now the key step is to talk with the regulatory agencies about how the risk was calculated and see if they can all agree on the methodology and conclusions. Mr. Clark said one of the complicating factors is that there are ambient metals and the team will need to figure out how to address those.

Ms. Smith asked if TIDA will start playing a role at this site soon. Mr. Sullivan said TIDA has an environmental consultant who is part of the larger project team. TIDA participates in meetings, reviews documents, and offers their comments. Ms. Smith asked about TIDA's plans for the site, saying she understood a certain portion would be wetlands and marsh, and another portion would be some sort of natural sewage treatment entity. Mr. Sullivan said TIDA's plans have evolved over the years. He added an updated plan is being presented

with the TIDA Board and the San Francisco Planning Commission the week of this meeting. The most recent plan is on TIDA's website.

There were no further questions. Because of the length of the meeting, Mr. Sullivan requested a five minute meeting break for the meeting recorder.

Upcoming Documents and Field Schedule
Because the meeting was running late and the rest of the items are administrative, Mr. Sullivan suggested attendees take the handouts for the Document Tracking Sheet (Attachment F) and the Field Schedule Sheet (Attachment G) and contact him if they have any questions.

RAB Meeting Minutes
Mr. Sullivan said Ms. Valmassy will e-mail the RAB members and ask for their comments on the draft February 2011 meeting minutes.

Other Public Comments and Announcements
Ms. Smith stated she has a comment on the Draft Field Activity Report for Site 32. She asked why the soil being removed is going to a landfill instead of being used as clean fill if the soil is classified as nonhazardous. She said she would send an e-mail with her comment to the Navy.

Mr. Sullivan noted the schedule for the next meeting and the next RAB conference call are on the back of the agenda (Attachment A). The meeting was adjourned at 9:11 pm.

April 2011 RAB Meeting Handouts
- Attachment A: NAVSTA TI RAB Meeting No. 153 Agenda, 19 April 2011
- Attachment B: Property Transfer & FOST Update
- Attachment C: Field Efforts, Site 12 Solid Waste Disposal Areas
- Attachment D: Field Activities Sites 21, 24, 32
- Attachment E: Draft Remedial Investigation Report Preview
- Attachment F: Document Tracking Sheet, 19 April 2011
- Attachment G: Field Schedule, 19 April 2011

BRAC Program Management Office

Naval Station Treasure Island
Property Transfer & FOST Update

Restoration Advisory Board
April 21, 2011

Property Transfer & FOST Update

- Property transfer (conveyance) of FOSTed property to the Treasure Island Development Authority (TIDA) has not yet occurred, but is expected to occur in phases beginning in early 2012.
- Portions of former Naval Station property have been previously transferred to the U.S. Department of Labor for the Job Corps Center on TI, to the U.S. Coast Guard on YBI, and by the Federal Highway Administration (FHWA) to Caltrans. The remaining Navy property will be transferred to TIDA.
- The Navy currently leases large portions of the remaining Navy property on TI and YBI to TIDA, and TIDA subleases property for housing, recreation, businesses, special events and other uses.

Property Transfer & FOST Update

- Major actions required for initial property conveyance from Navy to TIDA:
  - Navy completion of FOST 3 (aka 2010 FOST) in April 2011
  - Navy completion of Addendum to 2006 FOSTs (FOST 1&2)in 2011
  - TIDA completion of CEQA
  - Finalization of Conveyance Agreement (EDC, maps, deed, etc.)
  - Approval of final documents by Navy Headquarters and the San Francisco Board of Supervisors
  - Navy environmental milestones
    - Complete Building 233 Radiological Final Status Survey Report
    - Complete CERCLA Site 21 Final Record of Decision (ROD)
    - Conduct Remedial Action at Site 33 and complete Remedial Action Completion Report (RACR)

3

Property Transfer & FOST Update

- Initial Property Conveyance in 2012 will consist of:
  - 2006 Treasure Island and Yerba Buena Island FOSTs (1&2)
  - FOST 3
    - Draft FOST issued September 28, 2010
    - Final FOST planned April 2011
  - Addendum to 2006 FOSTs
- No Early Transfers planned at this time.
- Future additional FOSTs and property conveyances as environmental actions are completed and property becomes FOST-able. The overall schedule is in the Site Management Plan (SMP).

4

Naval Station Treasure Island
Site 12

April 19, 2011 RAB Meeting

Site 12 Documents

Final Status Survey Plan:

- **Shaw is currently making changes to the Internal Draft Plan to include Class 2 and 3 surveys of Site 12. Also, Shaw collected background data in March; analytical results are expected by the end of April.**

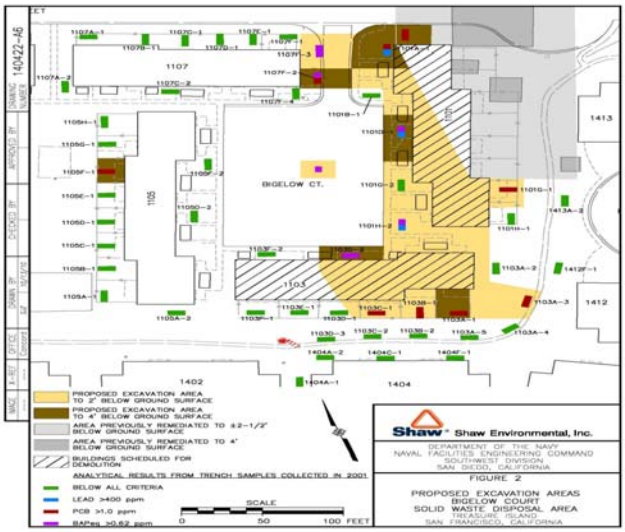
Building 1321 Hot Spot Removal Work Instruction:

- **The Navy is addressing State comments on the Work Instruction.**

Buildings 1123, 1319, & 1321 Demolition Work Instruction:

- **The Work Instruction is currently in Navy review.**

Upcoming Work at Bigelow Ct.



3

Bigelow Court Look Ahead

Work Plan:

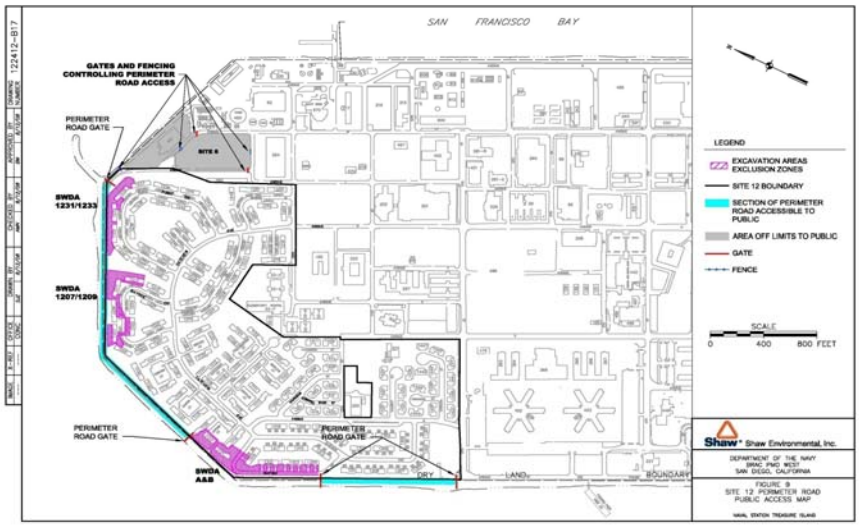
- **The Internal Draft Work Plan is currently in Navy review.**

Field Mobilization:

- **Field activities are expected to start late this summer.**

4

Perimeter Road Access



5

Naval Station Treasure Island

Field Activities

April 19, 2011 RAB Meeting

Groundwater Monitoring at Sites 21, 24, and 32

- **The Groundwater Monitoring Work Plan was finalized on March 1st.**
- **First quarter groundwater monitoring activities were conducted between March 9th and April 5th.**
- **Thirty five (35) wells were sampled at Site 21. Fifty two (52) wells were sampled at Site 24. Two (2) wells were sampled at Site 32. Results are scheduled to be reported by April 29th.**
- **Second quarter groundwater monitoring activities will begin in June.**

2

Groundwater Monitoring

Removal and cleaning of existing bladder pumps

3

Groundwater Monitoring

Bladder Pump Configuration
***Used for wells larger than 1-inch**

Peristaltic Pump Configuration
*** Used for 1-inch or smaller wells**

4

Site 21 Treatability Study

Final Treatability Report:

- **The Site 21 Final Treatability Report was finalized on March 1st.**
- **Removal Action effective in reducing groundwater contamination (chlorinated solvents)**
- **Small area of groundwater still exceeding cleanup goals**
- **Evidence of continuing biodegredation continue**

5

Site 24 Treatability Study

Phase 2 Treatability Report

- **The Internal Draft Treatability Report was completed by Shaw and submitted to the Navy for review on April 19th. Navy comments are scheduled to be completed in May.**

Phase 3 Work Plan

- **Navy submitted comments to the Internal Draft Plan on April 8th and Shaw is currently incorporating comments. Shaw is scheduled to complete addressing the comments by the end of April.**
- **Phase 3 work will address residual contamination along site boundary**

6

Soil Gas Sampling

Site 25

- **Soil gas sampling has been completed at Site 25. The Navy is working with the agencies on evaluation of vapor intrusion risk.**

Sites 21 & 24

- **Additional soil gas sampling is proposed for Sites 21 and 24: twenty six (26) locations at Site 21 and eight (8) locations at Site 24. Contract between Shaw and the Navy to perform the work is being finalized.**

7

Site 31 Steps Forward

- **Shaw is addressing comments received from the State on April 1st regarding the Work Instruction for radiological investigation of the elevated anomaly at Site 31. Investigation of the elevated anomaly at Site 31 will be conducted week of April 18, 2011**
- **The Preliminary Draft Work Plan for continued excavation is on hold pending results of the anomaly investigation.**
- **Remedial action at Site 31 is scheduled for this summer.**

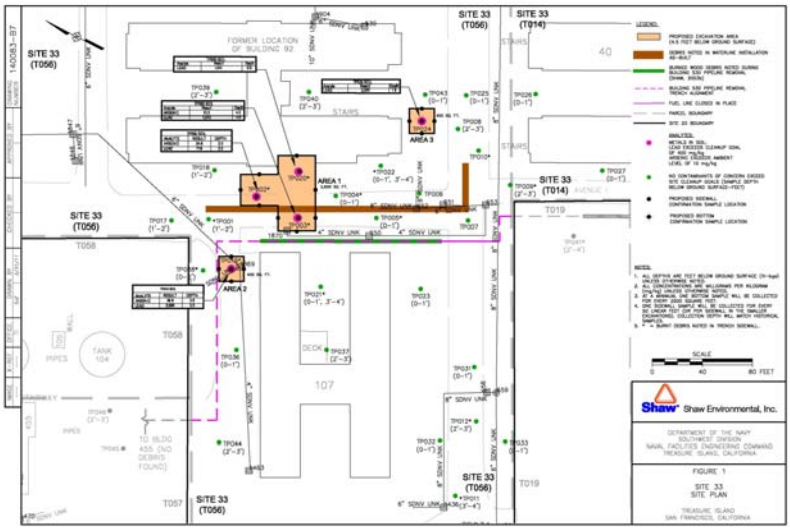
8

Site 33 Steps Forward

- **The Site 33 RTCs were issued April 1st for the Explanation of Significant Differences (ESD) to Site 31 ROD.**
- **The Preliminary Draft Work Plan for continued excavation is on hold pending results of the anomaly investigation at Site 31.**
- **Remedial action at Site 33 is scheduled to begin this summer.**

9

Site 33 Site Plan



10

Naval Station Treasure Island

Site 12

Draft Remedial Investigation Report Preview

Dave Clark, Lead Navy Remedial Project Manager

April 19, 2011
Restoration Advisory Board Meeting

Overview

- Purpose of Remedial Investigation (RI)
- Site History and Conceptual Site Model
- Site Description
- Previous Investigations
- Nature and Extent of Contamination
- Human Health Risk Assessment (HHRA)
- Screening-level Ecological Risk Assessment (SLERA)
- Conclusions
- Schedule

2

Site 12 – Old Bunker Area

3

Purpose of RI

- ✓ Summarizes the data previously collected to characterize site conditions
- ✓ Evaluates and delineates the nature and extent of contamination in soil and groundwater
- ✓ Assesses the potential risk to human health and the environment
- ✓ Provides recommendations for next step (Feasibility Study)

4

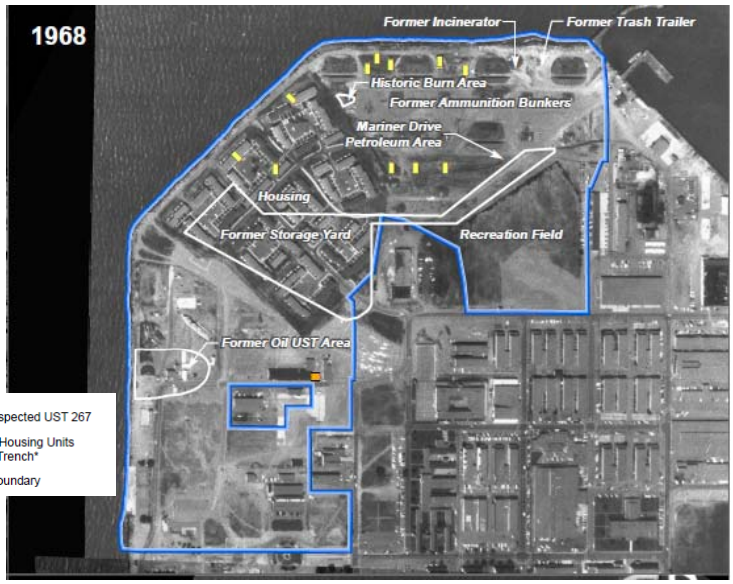
Site History

- Early 1940s to 1968, 21 ammunition bunkers were located in the Site 12 area and surrounded by general solid waste disposal areas (SWDA)
- Bunkers were removed and the area was prepped for construction of Navy residential housing
- SWDA materials were mixed and spread around with fill and surface soil within and outside the known SWDAs
- Multi-unit residential buildings were constructed in four phases from 1967 to 1989
- Navy leased portions of the housing area within IR Site 12 to TIDA in March 1999; first residential tenants moved in June 1999

5

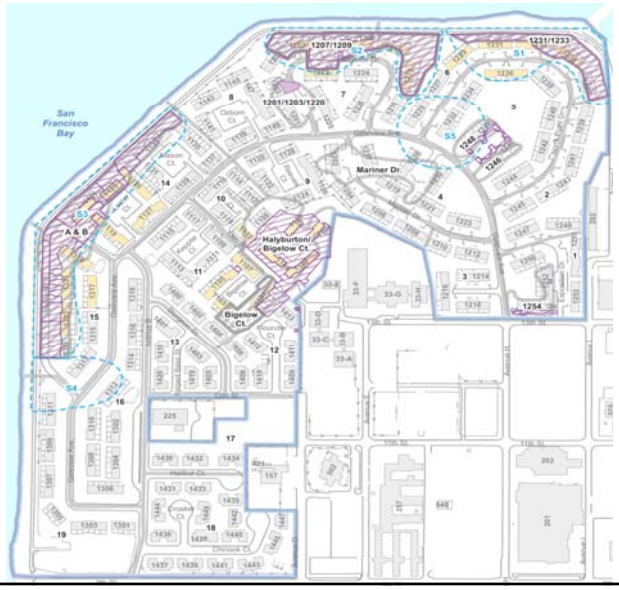
Conceptual Site Model

Conceptual Site Model (Cont'd)



7

Site Description



8

Site Description (Cont'd)

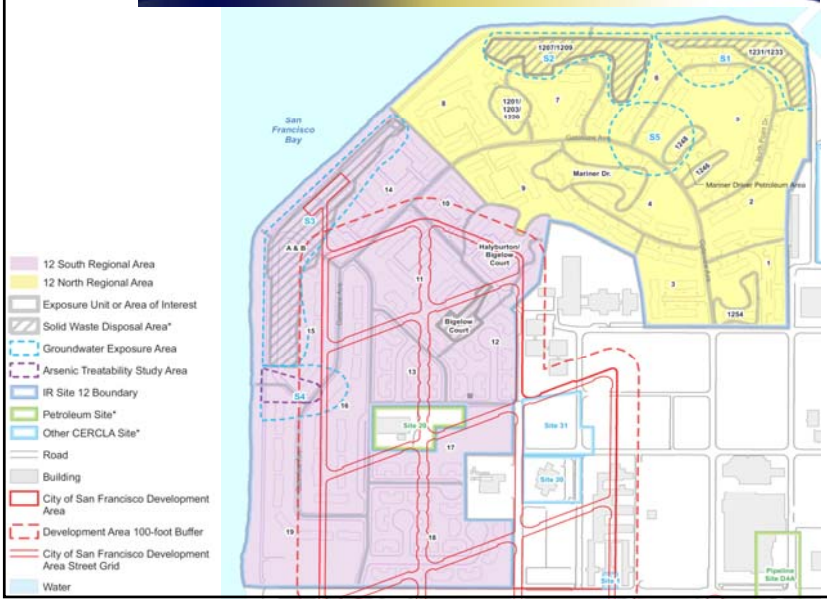
Due to size (94 acres), Site 12 was subdivided into the following:

- 19 soil exposure units (EU)
- 6 soil areas of interest (AOI)
  - Separate from EUs because of elevated levels of specific chemicals in soil such as petroleum-related chemicals, PAHs, PCBs, and lead
- 5 groundwater areas
- 4 known SWDAs
  - SWDAs are excluded from RI because they are undergoing a non-time critical removal action (NTCRA)

Site 12 was also divided into two regional areas in RI report:

- Site 12 North
- Site 12 South (red boundaries represent the City's designated "developable area")

Site Description (Cont'd)



Previous Investigations

Year	Investigation
1988	PA/SI
1992	Preliminary Risk Assessment
1992-Present	General Groundwater Monitoring
1997	Draft Final Onshore RI
1999	Draft Site 12 Operable Unit RI
1999-2002, 2006	PCB Investigations at Halyburton and Bigelow Courts
2001	Tidal Mixing Zone Study
2001	Ambient Metals Study
2001	Offshore Sediments RI
2000-2002	Initial Soil Gas Investigation within SWDA A&B
2000-2003	Exploratory Trenching, Soil Sampling
2005	Investigation of Arsenic in Groundwater

11

Previous Investigations (Cont'd)

Year	Investigation
2006	Historical Radiological Assessment
2007	SLERA (Sites 6, 12, 21, 24, 30, 31, 32, and 33)
2009	Targeted Investigation for VOCs in Soil Gas
2010	Human Health Risk Evaluation in Soil and Residential Backyard Evaluation
Ongoing	NTCRA (SWDAs 1231/1233, 1207/1209, and A&B) – Four other removal actions have previously occurred: o 1999 – Buildings 1207/1209 o 1999 – Building 1133 o 2000 – Halyburton and Bigelow Courts o 2001 – Buildings 1252, 1254, 1246, 1248, and 1413

12

Nature and Extent of Contamination

- A total of 4,039 samples associated with Site 12 were collected between September 1990 and June 2010
  - 3,607 soil samples
  - 322 water samples
  - 110 soil gas samples
- Data were compared with screening values in the RI report
  - Soil:
    - Risk-based concentrations (RBC) for residential exposure
    - Metals also compared against ambient levels
    - Petroleum compounds compared with TI criteria
  - Groundwater:
    - Criteria protective of aquatic organisms
    - Total petroleum compared with TI criteria
  - Soil gas:
    - RBCs for residential exposure

13

Nature and Extent of Contamination

- Exceedances of screening criteria for determining nature and extent of contamination:
  - Soil
    - Total petroleum hydrocarbons (TPH)
    - Polycyclic aromatic hydrocarbons (PAH)
    - Pesticides
    - Polychlorinated biphenyls (PCB)
    - Metals
    - Dioxin toxicity equivalent quotient (TEQ)
  - Groundwater
    - Total TPH
    - Metals
  - Soil Gas
    - Volatile organic compounds (VOCs) - benzene and chloroform

14

Human Health Risk Assessment

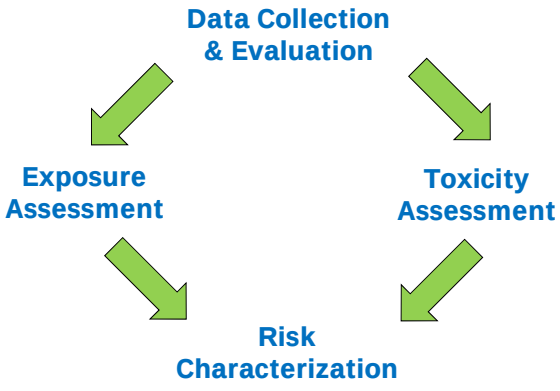
What is a Risk Assessment?

- Consistent process for evaluating and documenting public health threats
- Identifies the environmental media and chemicals that pose the primary health concerns, and those that pose little or no threat to human health
- Tool to help determine if remedial action is needed
- Provides a basis for evaluating remedial action decisions

15

Human Health Risk Assessment (Cont'd)

Four Steps of Risk Assessment



16

Human Health Risk Assessment (Cont'd)

Data Collection & Evaluation: What Is Out There?

- Soil, groundwater, and soil gas samples
- Surface and deep soil samples collected
- Volatile chemicals, semi-volatile chemicals, polycyclic aromatic hydrocarbons, pesticides, polychlorinated biphenyls, dioxins and furans, and metals detected
- TI ambient data for soil and groundwater

17

Human Health Risk Assessment (Cont'd)

Exposure Assessment: Who, How, and How Much?

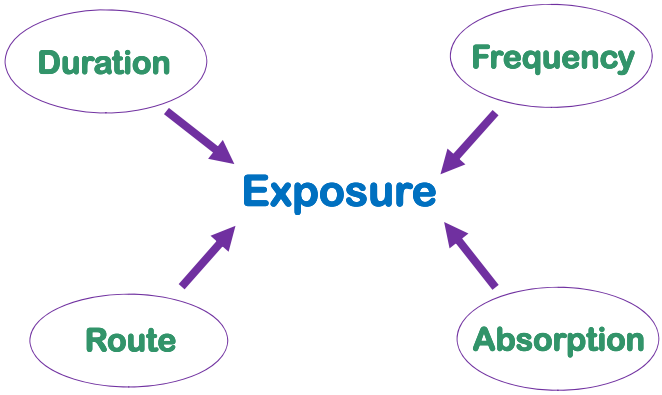
- Identify Potential Receptors (Who)
  - Current: Residents
  - Future: Residents, Commercial and Industrial Workers, Construction Workers, Recreational Users
- Identify Complete Exposure Pathways (How)

Source → Release → Transport → Location for Human Contact → Exposure Route at Contact Location

18

Human Health Risk Assessment (Cont'd)

- Estimate Chemical Intake (How Much)
  - Science-based exposure assumptions approved by EPA and DTSC



19

Human Health Risk Assessment (Cont'd)

Toxicity Assessment: Of Mice or Men?

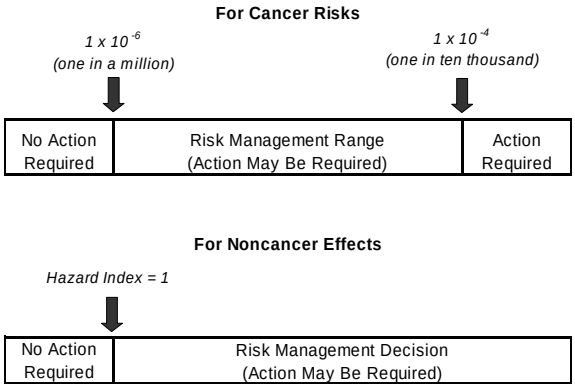
- Relationship between chemical intake and biological response
- Animal toxicology studies
- Extrapolate to potential human response
- Threshold response (noncancer effects)
- Non-threshold response (cancer effects)
- Uncertainty and safety factors
- Chemical-specific toxicity values: EPA and Cal/EPA

20

Human Health Risk Assessment (Cont'd)

Risk Characterization: Is the Risk Acceptable?

Chemical Intake, Cancer Toxicity Values → Cancer Risk
Chemical Intake, Noncancer Toxicity Values → Noncancer Hazard



21

Human Health Risk Assessment (Cont'd)

Site 12 Risk Characterization

- Separate cancer risk and noncancer hazard estimates for each EU and AOI
- Separate risk and hazard estimates for each receptor
- Risks and hazards calculated per pathway and summed for all pathways (cumulative)
- Total, site, and incremental risks and hazards
- Cancer risks: EPA and Cal/EPA
- Ambient risk and hazards for soil and groundwater

22

Screening-Level Ecological Risk Assessment

- Navy completed a SLERA and habitat surveys for terrestrial receptors exposed to soil in 2007
- Site visit indicated poor quality habitat at TI
- Analytical data for soil samples collected from 0 to 4 feet bgs were used to identify preliminary COPECs
- Maximum concentrations of COPECs pose potentially unacceptable risks to plant, invertebrate, and vertebrate receptors based on the conservative assumptions of the SLERA; however, habitat quality is poor and NFA was recommended
- Groundwater a concern near Building 1311/1313; monitoring will continue

23

Conclusions

RI report provides a recommendation for each exposure area, which may include:

- No further action
- Further action
  - Soil management plan for construction workers to address risk
  - Further investigation could include:
    - Sampling and risk evaluation for specific chemicals
    - Continued groundwater monitoring
  - Further evaluation in a Feasibility Study for possible remedial action

24

Naval Station Treasure Island
Environmental Cleanup Program
Document Tracking Sheet
April 2011 - September 2011

Item	Document Title & Information	CTO/DO	INTERNAL DRAFT		DRAFT									RTC			INTERNAL FINAL		FINAL		Comments
						Agency Comments															
			Internal Draft Due to Navy	Navy Comments Due	Draft to Agencies	Date Due	DTSC	WATER BOARD	EPA	TIDA	RAB	OTHER	Priority Level	Preliminary RTCs to Agencies	Resolve and Concur on RTCs		Internal Final to Navy	Navy Comments Due	Final to Agencies		
	Shaw Group																				
1	**Site 32 Post Construction Summary Report for PCBs in Soil** RPM: Danielle Janda PM: Pete Bourgeois	FZN1	05/11/10, 10/31/10 ✔ ✔	✔	02/21/11	✔	03/21/11	✔	04/20/11	✔	✔	✔					05/18/11		06/01/11		06/17/11		06/27/11		07/11/11		DTSC (4/13), EPA (4/13, WB (4/15)
2	**Building 233 Final Status Survey Work Plan** RPM: Anthony Konzen PM: Pete Bourgeois	010	08/31/10, 09/30/10, 10/11/10, 03/11/11 ✔ ✔ ✔ ✔	✔ ✔ ✔	11/25/10 , 03/04/11, 03/16/11	04/15/11		TBD								TBD			TBD		TBD		TBD		TBD		
	Site 21 Treatability Study Report RPM: Danielle Janda PM: Pete Bourgeois	FZN1	09/29/10	✔	11/10/10	✔	11/18/10	✔	12/18/10	✔	✔	✔	✔	✔			02/09/11	✔	03/03/11	✔	02/09/11	✔	03/03/11	✔	03/01/11	✔	
3	**Site 24 Treatability Study Report (Phase II)** RPM: Danielle Janda PM: Pete Bourgeois	FZN1	04/08/11		04/22/11		05/06/11		06/03/11								06/15/11		TBD		06/29/11		07/06/11		07/17/11		
	Sites 21, 24, and 32 Groundwater Monitoring SAP RPM: Danielle Janda PM: Pete Bourgeois	002/005	10/29/10	✔	11/12/10	✔	11/18/10	✔	12/18/10	✔	✔	✔	✔	✔			01/31/11	✔	NA		02/07/11	✔	03/02/11	✔	03/01/11	✔	
	Site 25 Soil Gas Investigation/Closure Request RPM: David Clark PM: Neil Hey	FZN1	NA		NA		NA		NA								NA		NA		NA		NA		03/07/11	✔	
4	**Site 12 Final Status Survey Plan (Master)** RPM: Anthony Konzen PM: Pete Bourgeois	010	08/11/10, 10/27/10, 03/18/11 ✔ ✔		TBD		TBD		TBD								TBD		TBD		TBD		TBD		TBD		Draft delayed to collect background samples; estimated delivery in May
5	**Sites 31/33 Remedial Action Work Plan (RAWP)** RPM: Lora Battaglia PM: Pete Bourgeois	FZN9	10/15/10* 11/22/10** 01/10/11 ✔ ✔		TBD		TBD		TBD								TBD		TBD		TBD		TBD		TBD		On hold pending anomaly investigation. *Work instruction for Site 31 submitted on 3/15
6	**Site 12 Bigelow Court NTCRA Work Plan** RPM: Anthony Konzen PM: Pete Bourgeois	FZN9	11/22/10, 12/23/10, 01/24/11 ✔ ✔ ✔		12/14/10, 04/30/11	✔	TBD		TBD								TBD		TBD		TBD		TBD		TBD		
7	**Site 24 Treatability Study Work Plan (Phase III)** RPM: Danielle Janda PM: Pete Bourgeois	FZN1	03/23/11	✔	04/07/11	✔	04/22/11		05/20/11								05/31/11		06/10/11		06/17/11		07/01/11		07/07/11		

Date Last Revised: 4/21/2011

Naval Station Treasure Island
Environmental Cleanup Program
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April 2011 - September 2011

			INTERNAL DRAFT			DRAFT									RTC			INTERNAL FINAL			FINAL		
							Agency Comments																
Item	Document Title & Information	CTO/DO	Internal Draft Due to Navy		Navy Comments Due	Draft to Agencies	Date Due	DTSC	WATER BOARD	EPA	TIDA	RAB	OTHER	Priority Level	Preliminary RTCs to Agencies		Resolve and Concur on RTCs		Internal Final to Navy		Navy Comments Due		Final to Agencies		Comments
	Tetra Tech EM Inc.																								
8	**Site 24 PP/RAP** RPM: Danielle Janda PM: Jean Michaels	083	01/28/11	✔	TBD		TBD		TBD							TBD		TBD		TBD		TBD		TBD		
9	**2010 Finding of Suitability to Transfer (FOST)** RPM: David Clark PM: Marcie Rash	001	08/09/10	✔	09/02/10	✔	09/28/10	✔	11/03/10	✔	✔	✔	✔			12/08/10	✔	01/05/11	✔	01/21/11	✔	02/02/11	✔	04/29/11		DTSC (10/26), EPA (11/1), WB (11/8), TIDA (11/2) Waiting for Site 25 closure
10	**Island Times Newsletter #17** RPM: Jim Sullivan PM: Marcie Rash	001	08/31/10	✔	04/05/11	✔	04/12/11	✔	04/26/11							05/06/11		NA		05/14/11		05/19/11		05/26/11		
11	**Site 33 Explanation of Significant Differences (ESD)** RPM: Lora Battaglia PM: Jean Michaels	489	09/30/10* 11/08/10**	✔ ✔	10/25/10* 12/16/10**	✔ ✔	12/30/10	✔	01/31/11	✔	✔	X	✔			04/01/11	✔	04/15/11		05/01/11		05/11/11		05/25/11		* Navy technical review ** Navy legal review DTSC (1/24), TIDA (2/4), WB (2/7)
12	**FOST Addendum (to 2006 TI/YBI documents)** RPM: David Clark PM: Marcie Rash	001	04/22/11		05/06/11		06/06/11		07/08/11							08/06/11		09/02/11		09/16/11		09/23/11		09/30/11		Waiting for Site 25 closure
13	**2011 Site Management Plan (SMP)** RPM: David Clark PM: Marcie Rash	001	03/24/11	✔	04/15/11	✔	04/22/11		05/22/11							06/12/11		07/12/11		07/15/11		07/29/11		08/12/11		
14	**Site 32 Proposed Plan/Draft Remedial Action Plan** RPM: Jean Michaels PM: Danielle Janda	489	05/02/11		05/16/11		06/16/11		07/18/11							08/16/11		09/12/11		09/26/11		10/03/11		10/10/11		
	Chadux Tetra Tech																								
15	**Site 12 RI Report** RPM: Dave Clark PM: Marcie Rash	049	03/02/11	✔	04/01/11	✔	06/30/11		07/30/11							08/27/11		TBD		09/26/11		10/06/11		10/20/11		
16	**Site 21 PP/RAP** RPM: Danielle Janda PM: Jean Michaels	083	04/09/10* 05/20/10**	✔ ✔	05/09/10* 11/12/10**	✔ ✔	12/16/10	✔	01/15/11	✔	✔	✔	✔	✔		TBD		TBD		TBD		TBD		TBD		On hold pending soil gas invest. WB (12/28), TIDA/TICD (1/14), DTSC (1/14), RAB (1/16)
17	**Site 27 PP/RAP** RPM: Lora Battaglia PM: Katie Henry	084	11/10/10* 01/06/11**	✔ ✔	12/29/10* 1/27/11**	✔ ✔	02/10/11	✔	03/12/11	✔	✔	✔	✔	✔	✔	04/12/11	✔	04/26/11		05/09/11		05/19/11		06/02/11		RAB (2/16), DTSC (3/2), WB (3/7), TIDA (3/11), BCDC (3/11), EPA (3/14)
18	**Well Removal Work Plan** RPM: Tony Konzen PM: Yohji Ono	044	10/22/10 11/19/10	✔ ✔	11/04/10 11/29/10	✔ ✔	12/10/10	✔	01/11/11	✔	✔	✔	✔			03/30/11	✔	TBD		02/14/11	✔	TBD		TBD		Cmts rec'd WB (12/13), EPA (1/12), TIDA (1/12), DTSC (1/24)

Date Last Revised: 4/21/2011

Naval Station Treasure Island
Environmental Cleanup Program
Document Tracking Sheet
April 2011 - September 2011

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	Trevet																				
19	**Site 30 2010 LUC Inspection and Reporting** RPM: David Clark PM: Greg Alyanakian	9002	04/05/11	✔	04/18/11	✔	04/22/11	05/22/11								05/29/11	NA	05/29/11	06/01/11	06/05/11	
20	**2010 Sites 6 & 12 Annual Groundwater Sampling Report** RPM: Tony Konzen PM: Greg Alyanakian	9002	02/23/11	✔	04/08/11		05/04/11	06/15/11								08/01/11	TBD	08/08/11	08/15/11	08/22/11	
	ERRG																				
21	**Site 6 RI/FS Report** RPM: Tony Konzen PM: Phil Skorge		06/13/11		07/14/11		07/28/11	08/27/11								09/24/11	TBD	10/24/11	11/03/11	11/17/11	

✔ Production or review of document is complete.

X Received notification of no comments or comments deferred to other agency.

Grey shading indicates the document is finalized.

Blue shading indicates agency review comments are due within the next 60 days or are outstanding.

Yellow shading indicates documents that will be issued draft or final within the next 60 days.

Abbreviations:

Bldg = Building
Caltrans = California Department of Transportation
CTO = Contract task order
DHS = Department of Health Services
DO = Delivery order
DTSC = Department of Toxic Substances Control
EU = Exposure unit
HERD = Human Ecological Risk Division
HSP = Health and safety plan
LUC = Land use covenant
NA = Not applicable
PCB = Polychlorinated biphenyls
PM = Project manager
PP = Proposed plan
RAP = Remedial action plan
RASO = Radiological Affairs Support Office
RI = Remedial investigation
ROD = Record of decision
RPM = Remedial project manager
SAP = Sampling and analysis plan
TBD = To be determined
TICD = Treasure Island Community Developers
TIDA = Treasure Island Development Authority
Water Board = Regional Water Quality Control Board

Naval Station Treasure Island
Navy Field Schedule
April 2011 - September 2011

Item	Activity & Investigation Area	DTS #	Field Dates		Navy RPM	CTO/DO	Project Manager	Field Team Lead	Complete
	Shaw								
1	Non-Time Critical Removal Action *Site 12*	Doc NA	Start: Finish:	02/26/07 TBD	Tony Konzen (619) 532-0924	010	Pete Bourgeois (415) 277-6983	Pete Bourgeois (415) 277-6983	
2	Building 1313/1311 Petroleum Investigation *Site 12*	Doc NA	Start: Finish:	11/10/08 TBD	Tony Konzen (619) 532-0924	FZN1	Pete Bourgeois (415) 277-6983	Pete Bourgeois (415) 277-6983	
3	Site 31 Remedial Action *Site 31*	Doc 5	Start: Finish:	TBD TBD	Lora Battaglia (619) 532-0968	FZN9	Pete Bourgeois (415) 277-6983	Pete Bourgeois (415) 277-6983	
4	Building 233 Debris Screening / Final Status Survey *Building 233*	Doc 2	Start: Finish:	07/26/10 TBD	Tony Konzen (619) 532-0924	010	Pete Bourgeois (415) 277-6983	Pete Bourgeois (415) 277-6983	
	Sites 21, 24, & 32 Groundwater Sampling *Sites 21, 24, & 32*	Doc NA	Start: Finish:	03/07/11 04/05/11	Danielle Janda (619) 532-0796	002/ 005	Pete Bourgeois (415) 277-6983	Pete Bourgeois (415) 277-6983	✔
5	Hot Spot Removal Action *Site 12*	Doc NA	Start: Finish:	TBD TBD	Tony Konzen (619) 532-0924	010	Pete Bourgeois (415) 277-6983	Pete Bourgeois (415) 277-6983	
	Chadux Tetra Tech								
6	Monitoring Well Decommissioning *Basewide*	Doc 18	Start: Finish:	TBD TBD	Tony Konzen (619) 532-0924	9002	Yohji Ono (510) 302-6301	Yohji Ono (510) 302-6301	

Abbreviations:

CTO/DO	Contract task order/delivery order
DTS #	The number listed corresponds to the associated documentation listed on the Document Tracking Sheet.
NA	Not applicable, there is no associated documentation listed on the DTS.
LUC	Land use covenant
RPM	Remedial project manager
TBD	To be determined

✔ Field work is complete.

Yellow shading indicates field activities that will start or finish within the next 60 days.

Grey shading indicates field activities are complete.